Minutes: Fifteenth Meeting of the Alaska Scientific Review Group
4-5 November 2002

1.0 Introduction[1]

This report summarizes the 15th meeting of the Alaska Scientific Review Group (SRG). The revised agenda is included as Appendix 1 and the list of SRG members and observers present is provided in Appendix 2. Appendix 3 provides a draft list of items for the agenda of the 10 March 2003 meeting.

After a brief introduction of SRG members and observers present, Brendan Kelly accepted changes to the agenda. Kelly asked whether there were any final recommended changes to the minutes from the last meeting; other than the spelling of John Moran's last name, no changes were suggested and the minutes were adopted.

2.0 Administration

Election of chair for 2003: Kelly asked whether there were any nominations for SRG chair for 2003. No nominations were made, and Kelly agreed to continue to serve as chair for one more year.

Travel: Angliss requested that SRG members complete their travel vouchers promptly after this and future SRG meetings. Some SRG members delayed requesting reimbursement for fiscal year 2002 meetings until the 2003 fiscal year, which makes it more challenging to budget for meeting and SRG-related costs in a particular year.

Electronic distribution: Angliss pointed out that background materials for this meeting, including the draft SARs, were circulated electronically in order to save money, save time, and reduce paper consumption. SRG members agreed that electronic distribution worked well. However, in the future, it would be useful to also send a list of background documents and to add page numbers to the draft SARs. In addition, double spaced reports should be reformatted as single spaced to reduce the size of the electronic file.

Angliss indicated that NOAA Fisheries was interested in distributing the final SARs on compact disk instead of as hardcopy to save money and reduce paper consumption. The SRG members supported this change.

SRG membership: Kelly indicated that at the previous SRG meeting, members had indicated an interest in adding someone with genetics and subsistence harvest expertise. Kelly introduced Lance Barrett-Lennard to the group as their selected genetics expert. Angliss reported that the paperwork needed to officially add Lance Barrett-Lennard to the SRG had not yet been completed, but that obstacles to adding him to the group were not anticipated and Barrett-Lennard will be formally added to the group by the next meeting.

[1] This document is intended to summarize the main points of discussion at the 15th meeting of the Alaska Scientific Review Group. The document does not attempt to repeat everything that was said during the meeting.

Kelly reported that Matt Kookesh recently resigned from the SRG and indicated that Charlie Johnson is now the only SRG member with a hunter's perspective on the subsistence harvest. Kelly pointed out that the SRG members had discussed at the previous meeting whether it would be useful to add additional people to the SRG to represent the Alaska Department of Fish and Game or to provide expertise on the subsistence harvest.

Tom Eagle outlined the process for appointing members to the SRG. These appointments are made by the Secretary of Commerce in consultation with the U.S. Fish and Wildlife Service. Initial appointments were made after hundreds of letters were sent to constituents requesting nominations for regional expertise in several subject areas. Since the Alaska SRGs conception, a few new members have been appointed (John Gauvin replaced Joe Blum; Milo Adkison was added). When adding new members, there is a general attempt to ensure that there is a balance of expertise, geography, and viewpoint. If the SRG members feel that there is a gap in expertise on the team, the SRG should deliberate, identify a candidate with the needed expertise, and communicate this need to NOAA Fisheries. The NOAA Fisheries liaison (Angliss) will work with the Alaska Region and NOAA Fisheries Headquarters to complete the necessary decision memoranda, and Headquarters appoints the new member.

Kelly clarified that although there is a general interest in ensuring that a balance of viewpoints is represented on the team, it is important for people to understand that the SRG's role is to review the science, and that the SRG is not a stakeholder group. Kelly pointed out that there are many other avenues for stakeholder involvement that can be pursued. Kelly asked Eagle whether there was a process that would allow groups other than the SRG to recommend members; Eagle responded that there was not a process for this, and that if this should occur, NOAA Fisheries would consult with the SRG.

Kelly recommended that the SRG convene in an executive session for an hour at the end of the day to discuss SRG membership needs, and the SRG membership agreed this would be a productive way to discuss current gaps in expertise on the SRG, and to discuss the nomination of candidates to fill these gaps.

Kelly indicated concern that there has been a problem with a lack of attendance at recent SRG meetings and recommended that members examine their schedules and make some hard decisions regarding whether they can or cannot continue to attend the meetings. Lowry questioned whether there were term limits for SRG members Eagle indicated that there was no term limit policy in effect. Lowry stated that a term limit policy might be useful, and that a good approach could be to instigate a 3-year renewable policy, in which a member who is a good participant would be asked to remain on the group after 3 years, but could choose to leave the group if they wished. SRG members generally supported this approach, and believed that it might be good for the group to rotate membership periodically. Eagle indicated that he would raise this issue with the Pacific and Atlantic SRG members to determine whether there might be support for this approach in other SRGs. Straley questioned who would evaluate whether an SRG member is a "good" participant. The SRG members felt that a member's willingness to attend meetings might be a good way to determine their interest, and that NMFS should coordinate with the SRG chair to make suggestions regarding membership.

Recommendations:

Unanimous support that NOAA Fisheries should consider adopting renewable 3-year term limits for SRG members. NOAA Fisheries should bring this issue up at the upcoming SRG meetings.

Unanimous support for electronic distribution of background materials and for distribution of the final SARs on CD instead of in hardcopy.

2.0 NOAA Fisheries topics

2.1 Update on NOAA Fisheries policy regarding incidental harassment of marine mammals by noise

Ken Hollingshead from the NOAA Fisheries Office of Protected Resources provided an overview of the small take authorization program, which implements section 101(a)(5) of the MMPA. This program issues authorizations for taking small numbers of marine mammals incidental to activities such as oil/gas exploration and development, bridge construction, and missile testing. In recent years, events such as ship strikes, and the beaked whale strandings in the Bahamas have highlighted the fact that other activities, such as military or research use of acoustics, should also be covered by a small take authorization because of the potential to harass, injure, seriously injure or kill marine mammals incidental to the activity. There are a variety of requirements for applying for a small take authorization, and two different types of authorizations which can be issued, so if a researcher suspects that their activity may incur incidental takes of marine mammals[2], they should visit: http://www.nmfs.noaa.gov/prot_res/PR2/Small_Take/smalltake.html for more information. Brad Smith is the AKR contact for additional information on this program and Hollingshead is the F/PR lead.

Hollingshead also noted that significant progress has been made in determining what constitutes acoustic "harassment" to marine mammals, and that criteria for defining acoustic harassment will be provided soon via a report by Roger Gentry. This report has evolved from a workshop held in 1998. Additional information on these criteria can be found at: http://www.nmfs.noaa.gov/prot_res/PR2/Acoustics_Program/acoustics.html.

In addition to presenting an overview of the small take program, Hollingshead described his proposal to bring the concepts implemented in the commercial fisheries interaction program (Section 118) into the small take program. Hollingshead described how the small take program currently uses Stock Assessment Reports in its analyses. Also, when takes may include serious injury or mortality, Potential Biological Removal (PBR) level determinations are incorporated

[2] This process should not be confused with the process of requesting a marine mammal scientific research permit under the MMPA. The small take program authorizes activities other than marine mammal research or commercial fisheries to incur takes incidental to their normal operations.

into decisions made in the small take program wherever possible. Hollingshead believes that incorporation of the PBR concept in the small take program is preferable biologically to the past use of maximum net population level (MNPL) since that concept simply requires an unquantified determination that the activity will not reduce affected stock(s) below MNPL or if below MNPL, will not deter recovery by more than 10 percent. Hollingshead also noted that the small take program's incidental take reports should be provided to those assessing impacts in order to determine total impacts to the species/stocks.

In the future, Ken would like to explore having these two programs interact more closely in order to address total marine mammal impacts and to determine what to do when takings are limited to harassment. For example, if a parallel with Section 118 is made, it is possible that most small take activities with only minor behavioral harassment takings may be considered "not biologically significant" because the potential for serious injury and mortality by the activity was zero or close to zero.

2.2 Serious injury guidelines: What are they, and should they be revised?

Angliss indicated that NOAA Fisheries headquarters would appreciate guidance from the SRG regarding the current serious injury guidance. This issue has recently arisen because different groups addressing takes of marine mammals in fishing gear in the Atlantic Ocean are using different criteria for what constitutes a serious injury. Due to this discrepancy, NOAA Fisheries is now considering whether it might be useful to establish regulations for what constitutes a serious injury. At this time, there are two sources of guidance regarding what injuries should be considered serious. First, congressional intent is clearly that "serious" injuries should be those that are expected to lead to a mortality. Second, a workshop was held in 1997 to consider what marine mammal injuries would likely lead to a mortality. The general results of the workshop was that any injury which would prevent movement or feeding should be considered a serious injury, and that any entangled animals should also be considered seriously injured.

Eagle pointed out that NOAA Fisheries had intended to publish regulations stating what types of injuries should be considered serious, but had abandoned the effort after the Office of Management and Budget asked NOAA Fisheries to conduct an economics impact analysis on the implementation of section 118 prior to publication in the Federal Register. Eagle indicated that the general results of the workshop are used to determine what injuries are likely to be serious, but that use of the workshop results was not official.

Kate Wynne asked how the definition of "serious injury" relates to whether a fishery attains the zero mortality rate goal (ZMRG). Angliss indicated that, because fisheries are classified based on serious injury and mortality, serious injures are included when determining whether a fishery meets the ZMRG.

Lowry indicated that the general guidelines for what injuries should be considered serious seems reasonable. Beth Mathews stressed that having photographs of the injured animal could be valuable when trying to determine whether an injury is serious, and that observers should be encouraged to take photographs of injuries in addition to describing the injury on data forms. Angliss indicated that she would follow up on this issue, find out the protocol for reporting

injuries, and if photographs are not encouraged, would ensure that this is encouraged in the future.

Wynne stated concern that all entangled animals are currently considered seriously injured. This is problematic because we now know that many animals can survive an entanglement. Wynne recommended that the fates of individual animals be examined in an attempt to determine what proportion of entangled animals survive the entanglement. Straley pointed out that humpback whales may become entangled in gillnet or seine gear, but on average, this gear falls off and the animal survives. In contrast, Straley indicated that animals entangled in pot gear typically do not disentangle without assistance. The current serious injury guidelines would treat entanglement in gillnet and pot gear the same, and it is not clear that this is appropriate.

> **Recommendation: NMFS should examine existing databases on entanglements to investigate whether it is reasonable to assume that all marine mammals entangled in all gear types are likely to die.**

2.3 NMFS Stock Assessment Improvement Plan

NOAA Fisheries has started a process to develop a Stock Assessment Improvement Plan (SAIP) for protected resources. This plan would be modeled after the highly-successful SAIP for fishery resources which was published in 2003. There are two main objectives of this effort: to review the current state of information in NOAA Fisheries protected resources stock assessments and to estimate the costs and staffing levels needed to improve the assessments.

Lowry pointed out that, while there are some stocks that NMFS has done a good assessment, there are some Alaska stocks for which there are no meaningful assessments. Unfortunately, collecting the information needed to develop a meaningful stock assessment requires funding, and it is not possible for the SRG to ensure that NOAA Fisheries has that funding.

Eagle indicated that during the development of the SAIP for protected resources, staff will be laying out what information we currently have on stocks, what information we need, and what can reasonably be accomplished with the funds currently available. After this step has been completed, we will estimate the staff and funding needed to improve our assessments using existing data, to elevate our stock assessments to new national standards, and to complete "next generation" assessments. To elaborate on what information might be included in a future stock assessment, Angliss elaborated that our "customers", such as the Navy and Minerals Management Service, need information on protected resources at different spatial and temporal scales than currently provided in the SARs. Kelly responded that the agency would probably have to consider trade-offs; for instance, it might be better to put more resources towards understanding Steller sea lion ecology at a different scale than collecting information on a species for which little information is available but for which there are no known conservation issues.

Angliss indicated that it is likely that a draft SAIP can be provided to the SRG for review and comment at the March meeting, and that the SRG would be asked to comment on the process, prioritization scheme, and draft outcome of the process.

Lowry indicated approval of NOAA Fisheries' planning efforts, but pointed out that the SRG is most involved in looking at marine mammal conservation at a very coarse scale. Barrett-Lennard questioned whether there were some stocks for which a SAR could not be completed. Angliss responded that, under section 117 of the MMPA, a SAR must be completed for all stocks, whether or not there is meaningful information available.

2.4 GAMMS II

Angliss indicated that, at the last SRG meeting, NOAA Fisheries reported that we were planning to convene a meeting to discuss how stocks should be identified under the MMPA. Angliss reported that this meeting did not occur in 2002. However, NOAA Fisheries is now planning a follow-up to the GAMMS meeting held in 1997, and "GAMMS II" is tentatively being scheduled for March 2003[3]. Draft agenda items may include procedural issues, such as timelines for completing draft and final SARs and changes in the review process. Agenda items may also include a review and revision of:

- guidelines for determining stocks
- standards for information to be included in the SARs, and
- guidelines for setting recovery factors

Lowry indicated that the previous GAMMS workshop was very useful. Angliss indicated that SRGs would be invited to send a few SRG members to the workshop; Hills, Straley, and Kelly indicated that they would be interested in attending.

2.5 Winter monitoring of impacts of oil/gas activities on ice seals

Angliss reported the results of the recent meeting to discuss the winter monitoring of the impacts of oil/gas activities on ice seals in the Alaskan Arctic. The oil/gas industry has attempted to use several different methods, some of which have been highly successful (eg – aerial surveys) and some of which have been substantially less successful (eg – tracking fate of structures over the season). It has become clear that innovative new approaches will be necessary to better address issues such as cumulative impacts.

NOAA Fisheries proposed that a pot of funds be set aside by industry, with or without some matching funds from NOAA Fisheries, which would be administered by some outside organization and used to fund research applied to determining the impacts of industry. Industry was cautiously optimistic, but indicated that they would have to caucus and get back to us with specific. Many issues still need to be addressed, such as who decides what proposals should be funded, but this may be a good way to involve more innovative research.

Lowry indicated that this approach was raised at the last meeting, and that it is really terrific that industry may be willing to participate. Lowry further stated that it would be very helpful for ice seal research if there were some non-federal funds available for research.

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[3] As of February 2003, the GAMMS II workshop has been postponed until at least April 2003.

Hollingshead pointed out that seal monitoring using dogs would have to continue under incidental harassment authorizations this winter because no mortalities are currently authorized and thus, all seals must be avoided if practicable. In the future, if industry has authorization to kill a small number of animals incidental to their operations, applied research may replace monitoring requirements.

2.6 Update on revising harbor seal stock structure

Payne provided a brief update on NOAA Fisheries' progress towards defining new stocks for harbor seals. The AKR, AKC, and SWFSC have been addressing stock structure over the past few years. Since the last SRG meeting, NOAA Fisheries published a Federal Register notice that provided a summary of the genetics information and requested comments (26 Aug 2002; 67 FR 54792). Three comments were received in the 30-day comment period: one from the Marine Mammal Commission, one from the Alaska Department of Fish and Game, and one from the Humane Society of the United States. The comment period was extended and one additional comment was received from the Naïve Village of Ekutna.

On Monday 28 October 2002, the harbor seal comanagement committee met in Juneau. The AKR presented proposed stock boundaries; the ANHSC also proposed stock boundaries. Kaja Brix provided a description of the stock boundaries proposed by the AKR. The proposed strawman boundaries integrated data from genetics, haulout information, tagging information, local trends in abundances, special management needs, and natural breaks in distribution. The AKR proposal would involve the creation of 14 stocks.

The ANHSC proposed using the 12 clusters of genetic information as stocks. Seal haulouts that did not fall into these clusters would be retained in their currently defined stock. Under this proposal, there would be 15 harbor seal stocks.

Kelly pointed out that if the ANHSC proposal was accepted, it would essentially discount all information except the genetics. SRG members questioned whether ignoring information like behavior and natural breaks in distribution was wise.

Monica Reidel stated that the ANHSC is still considering conducting an independent review of the genetics data. The ANHSC requested the extended comment period because they didn't think that the fishing community had adequate time to comment. ANHSC is still looking for a higher level of confidence in the genetics data.

Lowry stated that NOAA Fisheries now has very good information on harbor seals from a variety of sources, although there are still some holes. Lowry asked how the science and policy now work together to designate stocks. Payne indicated that we do not expect any new information on harbor seal stocks, so if the designation of stocks was purely a science-based decision, stocks could be designated today. However, the science has to be interpreted in the context of issues related to conservation and subsistence use. For instance, the Native Village of Eklutna suggested that it might be best to manage Cook Inlet as a separate stock since that is where that village takes all of it's seals. Lowry stated that the process NOAA Fisheries is using for harbor seals is contrary to the way the MMPA should be implemented. Will the agency next

ask commercial fishermen where boundaries between stocks should be drawn? Payne replied that there are some areas for which the data are very good, and it is pretty clear where boundaries should be drawn. In other areas, data are poor and the agency has a great deal of discretion, and it seems reasonable to work with the community to make good decisions about boundaries in these areas.

Eagle pointed out that one overriding factor that must be considered by NOAA Fisheries managers is whether we can actually manage for the units suggested by the data. For instance, NOAA Fisheries would have to define a unit in a manner so that abundance surveys could be conducted and so that human-related mortalities could be assigned. Eagle also mentioned that adopting the ANHSC approach may be problematic because we are already on record as relying on the Dizon et al. approach, and using all the data we currently have available to define stocks.

Payne stated that NOAA Fisheries will make the June deadline for revising stock structure, and will have revised harbor seal SARs for the November 2003 SRG meeting.

Barrett-Lennard asked whether additional genetics analyses, such as analysis of nuclear DNA, will be conducted. Greg O'Corry-Crowe indicated that they have started looking at male-mediate gene flow and that preliminary information indicated that the same general patterns hold for both nuclear and mtDNA. Adding an analysis of nuclear DNA will allow us to think about designating ESUs. Barrett-Lennard asked whether harbor seals have a clinal structure. O'Corry-Crowe responded that a clinal pattern cannot be ruled out, although the pattern does break down a little in the Gulf of Alaska. It is clear, however, that there is a gradual change in traits over distance.

Lowry asked how the ANHSC proposal would work operationally, and asked what criteria would be used for when haulout sites would be grouped into the "no sample" bin. Brix indicated that NOAA Fisheries has not yet gotten into the details of implementation of a new stock structure. Matkin indicated that he did not understand how they could assess and manage harbor seals under the ANHSC proposal, as this seems significantly more complicated.

Reidel asked whether this type of genetics analysis would be used for other species (e.g., Steller sea lions and sea otters) if the approach was accepted by this group. Brix indicated that genetics analyses have been conducted on Steller sea lions and that she did not know how far along the results are. Reidel also questioned how seals in British Columbia were related to those in Alaska. O'Corry Crowe indicated that we do have some samples from BC, and that there were some differences.

Lowry pointed out that he was unsure that it would be practical or necessary to have 14-15 separate Stock Assessment Reports for harbor seal stocks and suggested that SARs be developed for stock complexes (e.g. all of Southeast Alaska). Payne indicated that it might be reasonable to call them separate stocks and calculate PBR levels for each, but combine the stocks into management units.

O'Corry-Crowe indicated that the boundaries as currently drawn are really the first step. In order to combine these units, we really need to do another analysis in order to estimate dispersal rates.

Payne indicated that stocks themselves would not be lumped at this time, but might be lumped later if the dispersal rates support combining areas.

Matthews suggested that one alternative might be to have "core areas" and "buffer zones" for harbor seal conservation that would be based on movement data or geography. Lowry responded that this seemed like an interesting idea, but thought that it would complicate the management of 14-15 stocks even further.

Mark Lamoreaux stated that the tribes in southern Cook Inlet generally agreed with the stock boundary proposal from NOAA Fisheries and suggested that it might be good to separate Cook Inlet from other stocks because Cook Inlet is a very different environment and has different hazards than other areas (pollution & PDEs, sewage, etc). It might be possible to use harbor seals in Cook Inlet as indicator species for these issues. Cook Inlet harbor seals are not known to be in decline, but would like NOAA Fisheries to consider managing CI separately. Matkin commented that it was impressive that a user group wants to make a unit smaller for conservation purposes.

Rex Snyder commented that there has been a lot of focus on harbor seal genetics, and asked how does collecting more information on harbor seals trade off with the agency's needs for other species.

Kelly indicated that it seems that we cannot currently distinguish between 3 hypotheses for the fine-scale structure of harbor seal stocks: 1) the fine-scale stock structure is caused by barriers to dispersal, 2) stock structure is caused by extreme phylopatry, and 3) stock structure is a stepping stone relationship between areas.

> **Kelly summarized the SRGs discussion as follows:**
> **1) combining everything that hasn't been genetically sampled does not seem like a productive approach;**
> **2) NMFS should consider combining genetic units into management units, then do the SARs based on management units;**
> **3) none of this should preclude local groups from selecting smaller units that are meaningful for conservation purposes**

2.7 Review of right whale critical habitat decision

Smith reported that the petition to designate right whale critical habitat was received in October 2000. The petition recognized that several sightings had occurred in approximately the same location, and recommended that a relatively large area be designated as critical habitat. Smith pointed out that, technically, this was a petition to modify critical habitat since North Pacific and North Atlantic right whales are the same species and critical habitat already exists in the North Atlantic. Although NOAA Fisheries declined to designate critical habitat in the Federal Register notice published in February of 2002 (reference), the agency agreed to reconsider this decision after new information was collected during the 2002 field season.

In 2002, a broader area than "the box" was surveyed; 7 sightings occurred and all sightings were in "the box". One sighing included a cow/calf pair, which is the first confirmed indication that North Pacific right whales have reproduced successfully. There will be a meeting of agency staff at NMML in January to discuss the agency's strategy for designating critical habitat and for developing a recovery plan for these animals.

Lowry pointed out that the Federal Register notice stated that satellite tagging would be a useful approach and suggested that this be pursued. Moore responded that NMML had hoped to conduct tagging in 2002, but the program was not implemented. Passive acoustic recordings have demonstrated that right whales remain in "the box" through at least October. Paul Wade will be convening a meeting in the spring of 2003 to discuss satellite tag technology for large whales.

Matkin questioned whether the right whales were feeding when sighted. Moore replied that it would be hard to say; it appeared that the animals were feeding on copepods in the area during one year, but during this year there were only jellyfish in the area.

Smith stated that one key question is whether critical habitat should be designated just in the area where the animals are seen, or for a larger area to cover where the animals occurred historically. Kelly responded that the population is so small that the agency should consider areas other than where the few animals have been seen in recent years.

Lisa Rotterman asked whether right whales were detected off Kodiak using passive acoustics this past season. Moore responded that none were detected in 2002, but some calls were detected off Kodiak in 2001.

2.8 Review of bowhead whale critical habitat decision

Smith reviewed the history of the bowhead whale critical habitat petition that NOAA Fisheries received in February of 2000. Because bowhead whales were listed under the ESA prior to the enaction of the portion of the ESA that required critical habitat, the agency is not obligated to designate critical habitat. NOAA Fisheries considered factors such as population size, current rate of increase, and management of this stock and determined that designated of critical habitat was not warranted. NOAA Fisheries based this decision on four main points in the decision: 1) habitat issues were not a factor in the decline of the species, 2) there is no indication that habitat degradation is having an affect on the population at this time, 3) the stock is abundant and increasing, and 4) existing laws and practices provide adequate protection for this stock (e.g. MMPA small take authorizations, section 7 consultations).

Lowry stated that he disagrees with the decision because one of the goals of designating critical habitat is to prevent an area from being negatively affected in the future. It is clear that the Beaufort Sea is used by feeding whales, which constitutes significant use. In addition, the goal of most of the management actions is to prevent impacts of industry on the subsistence harvest, not on the bowhead whale population. For instance, the small take authorization program under the MMPA prohibits fall seismic operations from occurring until the whalers have taken their whales, but this is clearly to ensure that the whalers have a subsistence hunt, and it not implemented to protect the whales.

Matkin stressed that NOAA Fisheries seems to have made the decision not to designate critical habitat largely because the population is increasing and thus there is no conservation issue; Matkin further clarified that Lowry feels that this is not very forward-looking.

Smith pointed out that the benefit of designating critical habitat is that any entity planning activities in critical habitat must consult with NOAA Fisheries. Since all entities planning activities in the area already consult with NOAA Fisheries in this area, there is little benefit to designating critical habitat.

Lowry pointed out that NOAA Fisheries Headquarters has never designated critical habitat without being forced to do so.

2.9 Update on Cook Inlet beluga whale conservation plan

Payne indicated that in 2002, NMML staff developed a 5-year research plan for Cook Inlet beluga whales, which the SRG reviewed at the last SRG meeting. The Alaska Region is in the process of developing a conservation plan, but some problems with the process have slowed progress. While conservation plans developed under the MMPA are supposed to mimic recovery plans developed under the ESA, there is one important difference. Recovery Teams are exempt from the Federal Advisory Committee Act (FACA); thus, teams of interested individuals can meet and develop consensus recommendations on the material in the recovery plan. In contrast, there is no exemption from FACA for the development of conservation plans under the MMPA. Thus, teams cannot be effectively convened to develop a consensus conservation plan. Payne outlined five options for meeting the dual goals of meeting the legal requirements of FACA and developing a conservation plan:

1) apply for a FACA charter (which would provide an exemption for FACA) and convene an advisory body (not a quick or likely solution because of the time it takes to apply for a charter and the very low probability that a charter would be granted),
2) contract the development of a conservation plan (NMFS would have no involvement after the contract was issued; not a preferred solution because NMFS would not have input on what management actions were recommended, who was involved in the development of the plan, etc),
3) NMFS drafts sections of the conservation plan internally and without input from constituents, and these sections are circulated for public comment, NMFS later incorporate comments (This solution does not allow for constituents with different perspectives to discuss issues and come to consensus on what management options should be pursued),
4) complete the conservation plan internally without public input (not a preferred solution because this approach does not allow for constituents with different perspectives to discuss issues and come to consensus on what management options should be pursued), or
5) the SRG convenes a team as an SRG subcommittee to develop the conservation plan (A preferred solution because the SRG members are external to NMFS, they are familiar with the issues, and the group is exempt from FACA).

Kelly questioned how the development of a conservation plan fits within the role of the SRG. Eagle responded that the SRG is an advisory body, and under the MMPA, the SRG can advise the Secretaries of Commerce and the Interior on anything that the SRG and the Secretaries find of interest.

Johnson stated that the plan should only be developed in coordination with the comanagement principles. Payne responded that no management would be pursued except under comanagement.

During executive session, the SRG members present decided that they were not interested in convening a subcommittee to assist NMFS with the development of the Cook Inlet beluga whale conservation plan.

2.10 Estimating mortality incidental to commercial fisheries

Payne distributed a summary of preliminary information collected via the Alaska Marine Mammal Observer Program (AMMOP) at Kodiak in 2002. During 2002, there were 388 days of effort and the only marine mammals takes were harbor porpoise and 2 sea otters. In 2003, there will be a second year of coverage in the Kodiak salmon gillnet fishery.

Payne indicated that the Alaska Region would also like to implement an observer program for gillnet and purse seine fisheries in southeast Alaska. A pilot program was initiated in the summer of 2002 but the program met with a great deal of resistance from a few fishermen.

There are a number of challenges to implementing the AMMOP. For instance, the Alaska Region only has 50% of the funds needed for the observer program. Thus, it is very difficult to predict whether they will have sufficient funds to observe any fisheries in 2003.

The SRG questioned why the AKR was planning to observe fisheries in Southeast Alaska in 2003. Payne responded that Amy VanAtten (the AKR observer program coordinator) felt very strongly that we should observe the southeast fisheries due to humpback whale entanglements and because southeast fisheries have never been observed. However, the AKR is now considering implementing an observer program in either Prince William Sound or Yakutat Bay before southeast Alaska because of concerns about the levels of mortality of Steller sea lions (in PWS) and harbor seals (in Yakutat Bay). Determining the level of take of harbor seals incidental to commercial fisheries in Yakutat Bay may be particularly important because the AKR may consider recommending management of subsistence harvest in that area in the foreseeable future, and it will be necessary to have good information on the level of takes from all sources prior to recommending management of the subsistence harvest.

In response to a question from the SRG, Payne noted that there were no takes of beluga in the Cook Inlet salmon gillnet fisheries. It is not clear whether this was caused by a lack of overlap of beluga whale distribution and the fishery distribution.

Payne pointed out that the last three years of the AMMOP were very successful, and that Van Atten's leadership was a big part of the reason why the program has been successful. VanAtten

has recently left the AKR to run an observer program in the Northeast Region; an announcement for her position was recently announced.

Lowry questioned whether there is a CV for the rate of humpback whale entanglements. Angliss indicated that, because the entanglement rate is based on stranding data, a CV cannot be calculated. A SRG member asked whether Brix would be presenting the humpback whale stranding data as mentioned in the draft agenda; Angliss responded that the draft agenda item was added because of a statement at the previous SRG meeting that there was a significant amount of humpback whale entanglement data that was not reflected in the SARs. Angliss noted that Straley had indicated in a follow-up conversation that Brix's database includes all of the humpback whale stranding data; thus, because the information in the SARs is from Brix's database, the SARs should include the best information available and there is no discrepancy that needs to be discussed by the SRG. Straley pointed out that the stranding data are only what the researchers hear about, and there is no way to determine how many entanglements are missed.

Wynne indicated that, before a definition of serious injury is used to determine whether the level of take is greater than PBR, NOAA Fisheries should seriously consider whether trailing gear should automatically be called a serious injury. Angliss noted that often, information provided on an entanglement event is not sufficiently detailed to allow determination of how badly an animal is entangled; more detailed information should be collected when possible.

Brix noted that, because of the way the fishery is prosecuted (the take most likely occurs when the fisher is not present), a fishery observer program will not be helpful in providing a better estimate of humpback whale take in the pot fishery.

Matkin questioned whether Prince William Sound is prioritized for an observer program. Payne responded that Prince William Sound may be a high priority because of takes of Steller sea lions; until new information is available, NOAA Fisheries has to use old data from an observer program in PWS in the early 1990s. These data provide a rather high estimate of take for the fishery.

Lowry asked whether, during efforts to reinvent NOAA Fisheries, there any efforts to require that the fisheries pay for observer coverage because fisheries should be required to prove that they are "clean" before they are allowed to go forward. Eagle indicated that the Office of Science and Technology now has a national observer program that has put forward several budget initiatives, but that the program has not received a substantial portion of the tens of millions of dollars needed to fully implement coverage. Payne noted that a $7M initiative was put forward to cover the cost of observers in Alaska in 2004. If this initiative goes through, then $1.5M would be available for marine mammal observers in 2004.

2.11 Upcoming NMML research

Moore summarized upcoming NMML research planned for 2003. The most serious problem is that the Steller sea lion research funding is in jeopardy. While over $42M was provided in 2002 ($20M of which was for use by NOAA; the remainder of the $22M was provided to a variety of outside organizations for up to 3 years of research), only $5M was in the Senate budget mark for use by NOAA Fisheries in 2003 (a reduction of $15M). If NOAA Fisheries only receives $5M, we will have to make some hard decisions about what research will be eliminated in 2003.

NMML staff will continue counts of northern fur seal bulls in 2003.

Aerial surveys for harbor seals will be conducted in northern Southeast Alaska and VHF tagging studies will occur simultaneously to estimate a correction factor for animals missed during the surveys. Staff will be conducting year 2 of the harbor seal disturbance study in Yakutat Bay. John Bengtson and Mike Simpkins will be continuing their search for a long term study site for harbor seals so that a study similar to that at Tugidak Island can be initiated. A site in Cook Inlet is being considered but no final decisions have been made. Staff are also continuing to investigate the use of aerial photogrammetry to count harbor seals at glacial haulout sites.

Paul Wade is now the Program Leader for the Cetacean Assessment and Ecology Program. In 2003, state-wide aerial surveys for small cetaceans will be re-initiated. Surveys will occur in Southeast Alaska in summer of 2003, in the Gulf of Alaska in 2004, and in the Bering Sea in 2005. Aerial surveys and satellite tagging of Cook Inlet beluga will continue in 2003. NMML and the SWFSC are planning to conduct vessel surveys and tagging of right whales and other large whales in the southeast Bering Sea in 2003. Progress on the compilation of a computerized humpback whale photograph catalog will continue. A group of researchers, including NMFS, is organizing to cooperatively collect new information on North Pacific humpback whales in an effort to determine stock structure and obtain a basin-wide estimate of abundance for this population.

NMML hopes to continue killer whale photo-identification studies in western AK; data analysis will involve estimating the population size using both line transect and mark-recapture methods. In addition to the new information on killer whales in western Alaska, many photographs of humpback whales and biopsies for genetics have been collected opportunistically. However, because the studies on western Alaska killer whales were funded by Steller sea lion funds, continuation of this work in 2003 is not guaranteed.

At this time, $250K for ice seal research is included in the Senate budget mark. Precise plans for research have not been identified since NMML cannot yet guarantee that these funds will be received.

Moore indicated that there is a new, $1M initiative for NOAA Fisheries research on large whales in 2003. NMML expects that our share of this initiative will be approximately $250K. These funds may be used to conduct photo-identification of bowhead whales in order to confirm the estimate of abundance calculated from the ice-based census. If NOAA Fisheries intends to ever resurrect the use of photo-identification for determining abundance or survival rates of bowhead

whales, this should be pursued very soon because the photographs from the previous surveys are becoming quite dated and because the individuals involved in previous surveys are nearing retirement age. In addition, Craig George (North Slope Borough) is concerned that conducting ice-based censuses may not always be feasible because of changing ice conditions caused by climate change.

Straley noted that it might be very useful to conduct a calf mortality study north of Barrow. Moore responded that this would not work because, although animals are channeled close to Barrow during the spring migration due to heavy ice conditions offshore, animals are widely dispersed during the fall migration.

Moore stated that she hopes to continue the passive acoustics program in 2003. She recently collaborated with Scripps to build and deploy recorders using funds from NOAA Fisheries and is now trying to find other funds with which to continue the research. She will be meeting with statisticians and acousticians in December to discuss what more can be done with the passive acoustics information.

Moore stated that she also hopes to continue studies of gray whale distribution and feeding ecology off Kodiak, which is a "new" area for gray whales, and in the Chukchi Sea, where gray whale concentrations have shifted substantially, apparently in response to a shift in benthic productivity. Matkin asked whether the productivity has recently changed in the Bering and Chukchi Seas. Moore responded that a few people have recently been funded to examine productivity in these areas; although the methods used by different people have been slightly different, the results are basically compatible and do show that benthic productivity has shifted.

Johnson questioned what the plans are for the $250K for ice seal research. Moore indicated that the plans have not been finalized, but there is some interest in using remote sensing to assess ice seal populations. Johnson indicated that he and Bengtson had discussed additional harvest monitoring and sampling, but that the project had not gotten off the ground due to staffing issues and funds. Bob Small stated that NOAA Fisheries gave Gaye Sheffield and Lori Quakenbush funds to initiate an ice seal harvest monitoring program in 2002.

Kelly remarked that the $250K for ice seal studies may or may not continue beyond 2003 and might be received late in the fiscal year, so it might be useful for NMML to consider how the money should be used well in advance of receiving the funds.

3. USFWS topics

3.1 Review polar bear assessment manuscript

Steve Amstrup provided a summary of the assessment for polar bears in the Beaufort and Chukchi Seas. Polar bears are actually mobile animals; until recently, the assumption has been that they moved with the sea ice. However, recent research has demonstrated that polar bears have core areas of use that persist for more than one year. Some polar bears have very small home ranges, while others have very large home ranges.

Research shows that there are three main groups of bears, but the groups do overlap considerably. This overlap has management implications: if a bear is harvested in Barrow, it could have come from either of two different populations. However, a method has been developed to calculate the relative probability that a bear harvested in any particular area belonged to a particular population. A paper by Kern et al (19xx)[4] provides the ratio of bears expected to be from each stock and a CV for this ratio.

Lowry questioned whether the analysis and identification of stock structure was based on just females or on both sexes. Amstrup indicated that the stock structure was based on data from females only, as males cannot be satellite tagged (the heads of males are smaller than their necks, so a satellite collar falls off). Lowry pointed out that analysis is very elegant and demonstrates significant progress, but the harvest is 2/3 male and 1/3 female, so using a female-based stock structure may not be appropriate for management of a harvest that is primarily male. Amstrup responded that, although there is a small sample size to date, there are some data on male bears, and the data indicate that there is no significant difference between males and female movements. Until we have better information, it is best to use the movements of females to provide an indication of where both males and females occur. Amstrup indicated that the bear density contours can also be used to look at how many bears could be displaced or oiled under a particular spill scenario.

Kelly asked whether there were "homebody" bears (bears which have a consistently small, nearshore range) in the Chukchi Sea like there were with the Beaufort Sea. Amstrup indicated that this doesn't occur in the Chukchi Sea, likely because the ice in the Chuckhi Sea is a lot more variable than the ice in the Beaufort Sea. Kelly asked whether genetics samples were collected from the polar bears that were tagged. Amstrup indicated that genetics information indicated that there were no profound genetic differences between the three populations, but it was clear from the movement patterns that the bears are using the habitat differently.

3.2 Walrus population assessment

Doug Burn summarized the recent efforts to assess Pacific walrus. At this time, there is no estimate of abundance of walrus and no estimate of the population trend. A workshop was convened in 2000 to discuss options for developing a population estimate. Workshop participants recommended that two different methods be investigated for possible use in estimating the population abundance: remote sensing (both thermal and satellite imagery) and mark-recapture using genetics.

Prior use of thermal imagery include BESMEX studies (Ray & Wartzok 1980) and studies on Atlantic walrus (Barber et al 1989). In 2002, the Fish and Wildlife Service received funds from Stevens to conduct research on the use of remote sensing to do walrus studies south of St. Lawrence Island. In 2002, FWS tested an Airborne Multispectral Scanner (AMS). During the survey, many walrus were found to the north and southwest of St. Lawrence Island and tests of the AMS indicated that thermal imagery has potential for allowing enumeration of walrus. In the future, 2 aircraft should be used, one with a thermal scanner and a second with a digital

[4] Kern, J.W., T.L. McDonald, S. C. Amstrup, G.M. Durner, and W.P. Erickson. Using the bootstrap and fast fourier transform to estimate confidence intervals of 2-D kernel densities.

camera. In addition, it would be useful to have the capability to conduct two flights per day in order to utilize good weather periods.

In response to a question from the SRG regarding next steps, Burn indicated that he had recently attended the 2nd Marine Mammals of the Arctic conference at Lake Baikal. At that conference he met with Russian colleagues to discuss plans for a future joint walrus survey using thermal imagery; a small-scale population survey will be conducted in the Bering Sea in 2003.

Johnson asked whether the thermal imager could detect calves as well as adults. Burn responded that calves next to their mothers resulted in "additive" heat signatures and that calves could not be detected. However, calves could be seen in photographs.

Kelly questioned whether other recommendations, such as the use of mark-recapture genetics techniques, had also been pursued. Joel Garlich-Miller reported that they had a workshop on this approach, and that they needed to know how many animals could be feasibly be sampled. However, it is not known whether samples can be collected from animals in the water or whether a representative sample can be collected.

Johnson noted that 14 genetic markers have been identified, but less than that would be required to identify individuals. In addition, markers are available for identification of walrus gender. The modeling needed to determine population size was done by West; based on the modeling, researchers would have to sample 2000-3000 animals per year for 2-3 years to get a population estimate. Prior experience indicates that it's possible to sample 4-5 animals/hour, but it's still not clear whether researchers will be able to collect samples throughout the range of the species.

Kelly mentioned that a draft report on this modeling effort was available from West at the walrus workshop and asked whether a final report was available. A FWS staff member indicated that the final report on the mark-recapture model by West was distributed at a previous SRG meeting.

Meehan summarized that the FWS is currently pursing 2 tracks towards developing a population estimate: mark-recapture using genetics and aerial surveys with enhanced techniques. Because the amount of genetic sampling necessary in the Bering Sea will be hard to do and because it may not be possible to get a representative genetic sample, conducting aerial surveys with enhanced techniques looks more promising, although a correction factor for animals in the water must still be developed. The FWS is planning to pursue the use of remote sensing in 2003, and Chad Jay will be working on determining the proportions of animals in the water. Meehan stated that, optimistically, the FWS hopes to conduct a walrus assessment in 2004; however, this will not be pursued until they have a good assessment design. The FWS will convene another experts workshop before the assessment to review the final survey design before going in the field.

3.3 Sea otter research workshop results

Burn outlined the following highlights of the sea otter research workshop held on 3-4 April 2002[5]:

[5] A report of the workshop is available from Doug Burn, USFWS.

- Killer whale predation hypothesis – Estes described the hypotheses and stated definitively that it's unlikely that we're ever going to have a "smoking gun", or solid data that supports or refutes the hypothesis. Instead, we have to consider a "weight of evidence" approach to support the hypothesis (ie – sea otters are not dying of starvation and there are increased observations of predation). Nobody at the workshop offered an alternative hypothesis for the decline
- Monitoring – continue long term monitoring sites

Matkin noted that participants in the sea otter workshop suggested that the hypothesis about a potential predation problem in the Aleutians should not be extrapolated to explain sea otter dynamics in other parts of the range of the species.

Meehan added that one new piece of information is that the sea otter population near the Commander Islands is at least stable. The FWS is recommending that studies continue to determine why the dynamics are different in this area.

Burn indicated that the proposed rule to list the species under the ESA was sent to FWS headquarters in September, but has not yet been cleared. The FWS hopes to publish the proposed rule by the end of the calendar year. The designation of critical habitat for sea otters is also under way. However, an economic analysis of potential critical habitat is needed before critical habitat can be designated. FWS has not yet drawn lines on a map, but the proposed rule listing the species under the ESA does discuss "primary constituent elements" that could be used to designate critical habitat. The proposed rule also requests comments from the public regarding what might be valid criteria for designating critical habitat for sea otters.

Rotterman questioned whether the methods used in recent surveys identically replicate Brueggeman's methods. Burn responded that the same study area was used and recent surveys followed as many of the actual lines as they could. However, when they started analyzing the data, it became clear that Brueggeman's estimate of the size of the study area was incorrect, so Brueggeman's estimate had to be recalculated based on a revised study area.

Rotterman asked whether there has been any follow up on Dan Monson's work regarding differences in body condition and longer attendance patterns between Amchitka and Kodiak. These differences might highlight differences in resource availability between areas. Burn responded that there has not been much follow-up. However, a FWS staff member pointed out that the sea otters examined by Monson were recolonizing an area near Kodiak that was very prey-rich, so comparisons may not be useful.

Burn noted that the FWS SARs sent to the SRG are considered to be final. If the SRG has any final comments on the final SARs, these should be sent to Burn.

4. Review new draft SARs for 2003

4.1 Non-strategic stocks

Dall's porpoise
Angliss noted that, although the abundance estimate is old, NOAA Fisheries is not proposing to set the PBR level as "undetermined" for this stock because an abundance estimate is expected to be available for at least nearshore areas for the draft 2004 SARs. The new estimate for nearshore areas will be based on the small cetacean aerial surveys conducted in the mid-1990s. The results of these surveys can be used to calculate an Nmin, but not an Nbest, because the survey area only represents a portion of the stock's range. In addition, some new information on Dall's porpoise abundance is available for the Bering Sea, and those data indicate that the population in that area is "large".

Lowry stated that he is not comfortable with the approach used in the SAR to estimate abundance from ship surveys (calculate abundance and divide by 5 to account for attraction to ships). Angliss indicated that this issue will be avoided for the new estimate of Nmin because the number will be based on aerial surveys, not vessel surveys. In addition, there may be an opportunity to compare estimates from shipboard and aerial studies in Southeast Alaska in 2003. The SRG generally felt this would be useful.
One SRG member questioned whether the Turnock correction factor was reviewed by the SRG. Angliss indicated that this paper would be provided to the SRG for review. The SRG decided to put the Dall's porpoise population estimate on the draft agenda for March 2003 in hopes of providing an estimate of Nmin.

Harbor porpoise
Kelly noted that the SAR states that the boundaries are arbitrary. In fact, the boundaries were not arbitrary and there was some rationale for their placement. This should be reflected in the text.

One SRG member pointed out that harbor porpoise may occur in very high densities in small bays and inlets in Southeast Alaska, so it might be useful to test the assumption inherent in the analyses for the new population estimates that the numbers of animals in small bays and inlets are not a significant portion of the population.

Pacific white-sided dolphin
The text should be changed so that the PBR level is undefined, not zero. The SRG encouraged Angliss to enquire about the take of Pacific white-sided dolphins in Canada; Barrett-Lennard indicated that he would provide a contact for the information **(**Mariam**)**.

Minke whale
Johnson indicated that the subsistence/native harvest section needs to be updated, as the harvest is higher than reflected in the text. In addition, the gray whale SAR should be updated to reflect higher harvest levels. The FWS may have information in their harvest records that provide a better insight into harvest of these stocks.

4.2 Strategic stocks

Fin whale
Barrett-Lennard indicated that there may be some data on fin whale abundance for BC soon. Also, there were a few records of ship strikes of fin whales in 2001 and in 2002. Wynne mentioned that the SAR is missing a record of an observed fin whale taken in the groundfish fishery.

Cook Inlet beluga
The SRG pointed out that a few beluga were found in Yakutat and that these animals were apparently not "covered" in any SARs. Payne responded that the Cook Inlet stock includes all beluga south of a certain latitude, so would actually include that the Yakutat animals. There are reports of 7-20 animals in Yakutat. In response to a question from the SRG, O'Corry-Crowe indicated that one biopsy of a Yakutat beluga was obtained in 2002, but that the preliminary results indicated that the haplotype was not very informative.

North Pacific right whale
Kelly re-iterated that it was not entirely clear what NOAA Fisheries' plan is in terms of how it should go about designating critical habitat. Moore responded that methods which will be applied include tagging, additional years of traditional survey effort, and passive acoustics recording. Kelly asked whether the agency should be more proactive about extrapolating from other stocks or using historical data to designate critical habitat. Eagle responded that it might be best to protect the areas where we know right whales exist (the box) and don't extrapolate to what we don't know. Payne re-iterated that NOAA Fisheries staff have discussed critical habitat very recently and are following up with a meeting to discuss this further in early 2003.

Payne questioned whether the SRG members felt that there is a real threat to right whales within "the box". Matkin responded that it might be best to protect an area even though there isn't an imminent threat. In response to an SRG member's question about entanglements in the pot fishery, Payne indicated that there is spatial overlap of "the box" and the pot fishery, but there is not temporal overlap. Payne also stated that NOAA Fisheries brought the concept of right whale critical habitat to the North Pacific Fishery Management Council (NPFMC) last year and will raise the issue again at the February NPFMC meeting. As an aside, he indicated that the Council is currently considering the establishment of a committee to address Steller sea lions, fur seals, and right whales.

Lowry asked whether NOAA Fisheries is setting up a recovery team for North Pacific right whales. Payne indicated that this was not being pursued at this time, but that he would consider this if there was a need.

Humpback whales
For the draft SAR, Angliss computed a new maximum rate of increase (8.8%) for the portion of the central North Pacific stock that occurs in Southeast Alaska and suggested that could be used instead of the default rate of increase for cetaceans (4%), which is clearly an underestimate. The

SRG seriously questioned whether the initial population size could be used for the calculation because Straley is confident that the estimate of 400 animals was biased low.

In response to questions about what maximum rates of increase were currently being used for other humpback whale stocks, Straley noted that Clapham used 6.5% in the SARs for a few years but is now using 4%; Barlow is currently using 8% for CA/OR/WA humpback whales. Straley pointed out that humpbacks may have a rate of increase of up to 11% in the southern hemisphere. Further, Mizroch et al (in preparation) calculated a 10% rate of increase for the entire North Pacific humpback whale population, although this rate was calculated for combined feeding areas, no specifically Southeast Alaska. Barrett-Lennard questioned whether it would be possible to determine the rate of increase based on calving rates instead of repetitive surveys.

Hills questioned whether "new" data, such as the calculation of a population rate of increase, should be incorporated in the SARs without an accompanying manuscript that describes the data and methods used. Angliss pointed out that other data, such as mortality information, was often included in the SARs without supporting manuscripts. In addition, the calculation of a rate of increase is a simple regression based on published information and should not require extensive background documentation. Lowry agreed that it is reasonable to calculate a rate of increase given a series of population estimates provided that the SRG agreed that the population estimates are reasonable. However, in this case, the initial estimate is known to be biased low and the SRG recommended that it not be used in a calculation of rate of increase.

The SRG did recognize that the current Rmax for North Pacific humpback whales is likely conservative, and that a higher value would probably be more appropriate. Straley committed to assemble information on Rmax for other humpback whale stocks in preparation for the next SRG meeting. NOAA Fisheries should retain the default Rmax of 4% for the 2003 SARs.

Lowry indicated that that calculation of the portion of the central North Pacific stock which does not occur in Southeast Alaska portion should be accomplished by first calculating the total number of animals in the stock, then subtracting out the population size for Southeast Alaska.

SRG members noted that new information on humpback whale abundance and genetics in the western Gulf of Alaska will be available soon. Bree Whitteveen will finalize her thesis on humpback whale abundance and foraging ecology around Kodiak and the Shumagin Islands this winter, and provide a contract report to the Marine Mammal Commission in December 2002. In addition, Sasha Burdin collected 2 humpback photographs incidental to his killer whale studies off Russia in 2002. Both sources of information should be investigated[6].

As an aside, Barrett-Lennard indicated that information on humpback whale entanglements in Canada does exist, and that John Ford would be a good contact for the information.

Sperm whales

Wynne pointed out that the one serious injury of a sperm whale involved a hook in it's mouth, and questioned whether this type of injury should be considered serious. Angliss indicated that

[6] This information will be incorporated in the 2004 draft SARs.

this was appropriate given the current guidelines for what constitutes a serious injury (animals with hooks in their mouths are seriously injured).

Straley noted that she had heard that there has been an increase in shootings of sperm whales in the western Gulf of Alaska. Angliss indicated that she had asked NOAA Fisheries Enforcement for the latest information on violations of the MMPA, and that she did not recall any records of shootings of sperm whales. However, Angliss will follow up and see if records exist.

The SRG suggested that the sperm whale SAR be updated with quantitative information on sperm whale interactions with fisheries provided in a sablefish stock assessment report by Mike Sigler; this report is apparently posted on his website.

Steller sea lion, western and eastern

Kelly noted that, for the recovery plan, a correction factor is used to determine how many animals were not counted on the haulout sites, and that this extrapolation is used as the population estimate. Kelly questioned why this approach is not used for the SARs. Angliss indicated that the number of animals counted on the haulouts has always been used as the most reliable estimate of the minimum population size. Small noted that the sea lion community in general is more interested in trends than in absolute numbers, so it is sensible to use the numbers of animals on the haulouts. Lowry pointed out that if you use a correction factor and numbers change, it is not clear whether there's a change in the correction factor or a change in the population abundance.

Angliss noted that she had recently received information on Steller sea lion counts for the eastern stock from the Oregon Department of Wildlife and that the numbers did not correspond with those in the SAR for the eastern stock. This SAR will not be circulated to the SRG until the numbers are resolved. Small noted that Don Calkins has prepared a draft section on the size of the eastern stock for the recovery team and that he might be willing to assist in teasing out why the values would be different. Angliss agreed to contact him in the near future.

Northern fur seal

The SRG questioned why the most recent count of fur seals was being used instead of the mean for the past 5 years, and recommended that, unless there's a good justification to use means, the most recent data should be used.

Barrett-Lennard pointed out that, while the population is quite large, there are some similarities to the Steller sea lion situation in that the population is currently in decline and the decline cannot be explained by direct human-related impacts. Lowry recommended adding language to the PBR section that the take level is below PBR, but because the population is in decline and direct take is not the cause, caution in management is advised. In effect, a large PBR level does not reflect the ability of this population to handle additional mortalities.

Angliss indicated that she would be updating the habitat section of the fur seal SAR in 2004 to reflect new information about the foraging habitat of female fur seals. Preliminary analysis of changes in groundfish trawl effort indicates that the measures designed to protect Steller sea

lions may have caused a shift of fishing pressure into the foraging areas of mature female fur seals. This will be addressed next year.

The SRG asked that Angliss determine whether it is still appropriate to use Lander 1981 as the basis for the abundance estimate. Angliss committed to report on this at the March 2003 meeting.

Bowhead whales
Angliss recognized that the George et al paper used to support the inclusion of a new abundance estimate and rate of increase for the western Arctic bowhead whale stock had not been provided, and indicated that she would distribute the manuscript to the SRG.

Bairds beaked whales
Matkin pointed out that many sightings have occurred recently off Unalaska. Angliss indicated that she does not expect to be able to provide a population estimate in the 2004 SARs, but that distribution gleaned through sightings from recent surveys would be summarized for next year.

Other stocks
Barrett-Lennard indicated that common dolphins have recently occurred in BC waters and asked what stock these might belong to.

5.0 RECOMMENDATIONS

The SRG developed the following draft list of recommendations to send to NOAA Fisheries:

1) Regarding the strawman plan for stock boundaries that the AKR presented to the comanagement meeting & a 2nd proposal for stock boundaries supported by the ANHSC and the AKC. . . . .

   A) Combining all seals from sites that haven't been genetically sampled does not seem like a productive approach (the ANHSC and AKC approach)
   B) NOAA Fisheries should consider combining genetic units into management units, then write the SARs based on the larger management units

      In Southeast Alaska, where there is limited sampling and the limited sampling may be at least partially responsible for significant differences, the SRG thought it might make more sense to lump stocks into a stock complex. SARs would then be written for the complex, and PBR-like values could be calculated for smaller units.

   C) Nothing should preclude local groups from selecting smaller harbor seal units that are meaningful for conservation purposes

2) NOAA Fisheries should examine existing data on entanglements to investigate whether all types of entanglement of all marine mammals necessarily causes serious injury.

The SRG noted that it may be necessary to refine the definition of serious injury to incorporate different guidelines for different species; consider whether there is new information that should be considered in the guidelines for serious injury.

3) The SRG unanimously agreed that NOAA Fisheries should consider doing renewable 3-year terms for SRG members

4) The SRG recommend that funding and implementing a tagging and passive acoustic monitoring studies of North Pacific right whales be a high priority and should be implemented as soon as possible. A designation of critical habitat should not be delayed pending the results of these studies; the box where animals have been seen over the past few years should be designated as critical habitat now.

5) The SRG supported the use of electronic distribution of documents for SRG review and for the final SARs.

The next meeting will be scheduled for 10 March in Seattle, Washington

Appendix 1: Final agenda Alaska Scientific Review Group meeting, 4-5 November 2002

4 November 2002 - Monday

1. Adoption of agenda

2. Adoption of minutes

3. Administration

    3.1 Election of chair for 2003

    3.2 Travel

    3.3 Update on new SRG members (expertise in genetics, subsistence harvest)

    3.4 Continue discussion regarding adding ADF&G staff

    [Note – 3.3 and 3.4 were not discussed at length during the open meeting. The SRG went into an executive session at the end of 4 November to discuss and recommend new membership]

4. NMFS topics

    4.1 Serious injury guidelines (What are they & should they be revised?)

    4.2 NMFS Stock Assessment Improvement Plan (Angliss)

    4.3 GAMMS II (Angliss)

    4.4 Update on revising harbor seal stock structure (Payne)

    4.5 Update on NMFS policy regarding incidental harassment of marine mammals by noise (Hollingshead)

    4.7 Review of right whale critical habitat decision (Payne)

    4.8 Review of bowhead whale critical habitat decision (Payne)

    4.9 Update on beluga whale conservation plan (Payne/Smith)

5 November 2002 - Tuesday

5. USFWS topics (Meehan)

    5.1 Review polar bear assessment manuscript (Amstrup)

    5.2 Walrus population assessment (Burn)

    5.3 Sea otter research workshop results (Burn)

    5.4 Update on sea otter research, listing decision, and critical habitat

6. Conclude NMFS topics

    6.1 Estimating mortality incidental to commercial fisheries (Payne/Angliss)
    - Stocks in need of improved fishery-related mortality information
    - Observer program design and trade-offs
    - Alaska marine mammal observer program priorities

    6.2 Upcoming NMML research (Moore)

7. Review new draft SARs for 2003

    7.1 Non-strategic stocks
    - Dall's porpoise
    - Harbor porpoise
    - Pacific white-sided dolphin
    - Minke whale

    7.2 Strategic stocks
    - Fin whale (new information on range from the Mizroch et al ms)
    - Cook Inlet beluga (new population estimate)
    - North Pacific right whale
        -- Crab fishery interactions
    - Bowhead whale
    - Steller sea lion, western and eastern
    - Northern fur seal
    - Humpback whale, central North Pacific stock (including the SE Alaska feeding aggregation) and the western North Pacific stock
        -- Summary of the report providing an estimate of abundance of humpback whales in SE AK (Straley)
    - Sperm whale

Appendix 2: Attendees at the SRG meeting

SRG Members
Robyn Angliss (Executive Secretary)
Lance Barrett-Lennard (invited guest – will be added formally)
Sue Hills (Tues only)
Charlie Johnson
Brendan Kelly
Lloyd Lowry
Craig Matkin
Beth Matthews (via conference call)
Jan Straley
Kate Wynne

Observers/guests
Dave Allen (USFWS Regional Director)
Steve Amstrup **(**USGS – BRD**)**
Sherman Anderson (AK Nanook Commission)
Kaja Brix (NMFS – AKR)
Doug Burn (FWS)
Helen Chythlook (ANHSC)
Tom Eagle (NMFS – F/PR)
Gary Edwards (USFWS Deputy Regional Director)
Joel Garlich-Miller (FWS)
Tom Gelatt (ADF&G)
Ken Hollingshead (NMFS – F/PR)
Susan Kalxdorff (USFWS Marine Mammals Management Office)
Mark Lamoreaux (Native Village of Elukna)
Barbara Mahoney (NMFS – AKR)
Rosa Meehan (FWS)
Sue Moore (NMFS – NMML)
Greg O'Corry-Crowe (NMFS – SWC)
Mike Payne (NMFS – AKR)
Monica Reidel (ANHSC)
Lisa Rotterman (MMS)
Scott Scheilbe **(**USGS – BRD**)**
Bob Small (ADF&G)
Brad Smith (NMFS – AKR)
Rex Snyder (ANHSC)
Ward Testa (NMFS – NMML)
Mark Weber (USFWS Marine Mammals Management Office)
Donna Willoya (Alaska Sea Otter and Steller Sea Lion Commission)
Bruce Woods (USFWS External Affairs Office)

Appendix 3: Draft agenda items for March 2003 SRG meeting

Steller sea lion research review (solicit specific topics after the January 2003 SSL meetings)

Steller sea lion correction factor – Wynne will report back on how the SSL Recovery Team addresses this

How to do SARs for harbor seals

Update on Dall's porpoise estimate from 97-99 aerial survey data

Humpback Rmax (Straley) (maybe defer this to GAMMS II?)

Funding priorities for ice seals (get a draft list of priorities for ice seals & comment on this; circulate workshop report)

Update on AKR observer program priorities

Update on the walrus mark-recapture approach to assessment (fall 2004)